BRUHAT BANGALORE MAHANAGARA PALIKE

KODIGEHALLI SUBDIVISION

WARD NO.07, Byatarayanapura

Measurement Sheet

Name of work: Improvements to Roads of 1st to 11th Cross Left side of Jakkur Layout in Ward No 07, Byatarayanapura,

.

Est Cost : 50.00 LAKHS

BRUHAT BANGALORE MAHANAGARA PALIKE

Agency:

Name of Work: Improvements to Roads of 1st to 11th Cross Left side of Jakkur Layout in Ward No 07, Byatarayanapura

Sl No	Description of item	Unit	No	L	B	D	Qty
1	Removing and resetting of footpath slab						
	Footpath Slab	cum					
		0-30	2	30	1.2		72
		40-60	2	20	1.2		48
		60-90	2	30	1.2		72
		95-125	2	30	1.2		72
		130-160	2	30	1.2		72
		160-190	2	30	1.2		72
		190-220	2	30	1.2		72
		230-260	2	30	1.2		72
		260-290	2	30	1.2		72
						Total	**624.00**
2	Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification						
		cum					
		0-30	2	30	0.5	0.60	18
		30-60	2	30	0.5	0.60	18
		60-90	2	30	0.5	0.60	18
		90-120	2	30	0.5	0.60	18
		120-150	2	30	0.5	0.60	18
		150-180	2	30	0.5	0.60	18
		180-210	2	30	0.5	0.60	18
		210-240	2	30	0.5	0.60	18
		240-270	2	30	0.5	0.60	18
		270-300	2	30	0.5	0.60	18
		300-330	2	30	0.5	0.60	18
						Total	**198.00**
			2	6	1.8	0.90	19.44
						Total	**217.44**
10	Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications.						
		cum					
		0-10		10	2.0	0.2	4
		15-30		15	2.5	0.25	9.375
		35-50		15	3.0	0.2	9
		55-65		10	4.0	0.2	8
		120-130		10	2.5	0.2	5
		145-150		18	3.0	0.2	10.8
		155-165		10	4.5	0.25	11.25
		170-180		10	3.0	0.25	7.5
		180-190		10	2.5	0.25	6.25

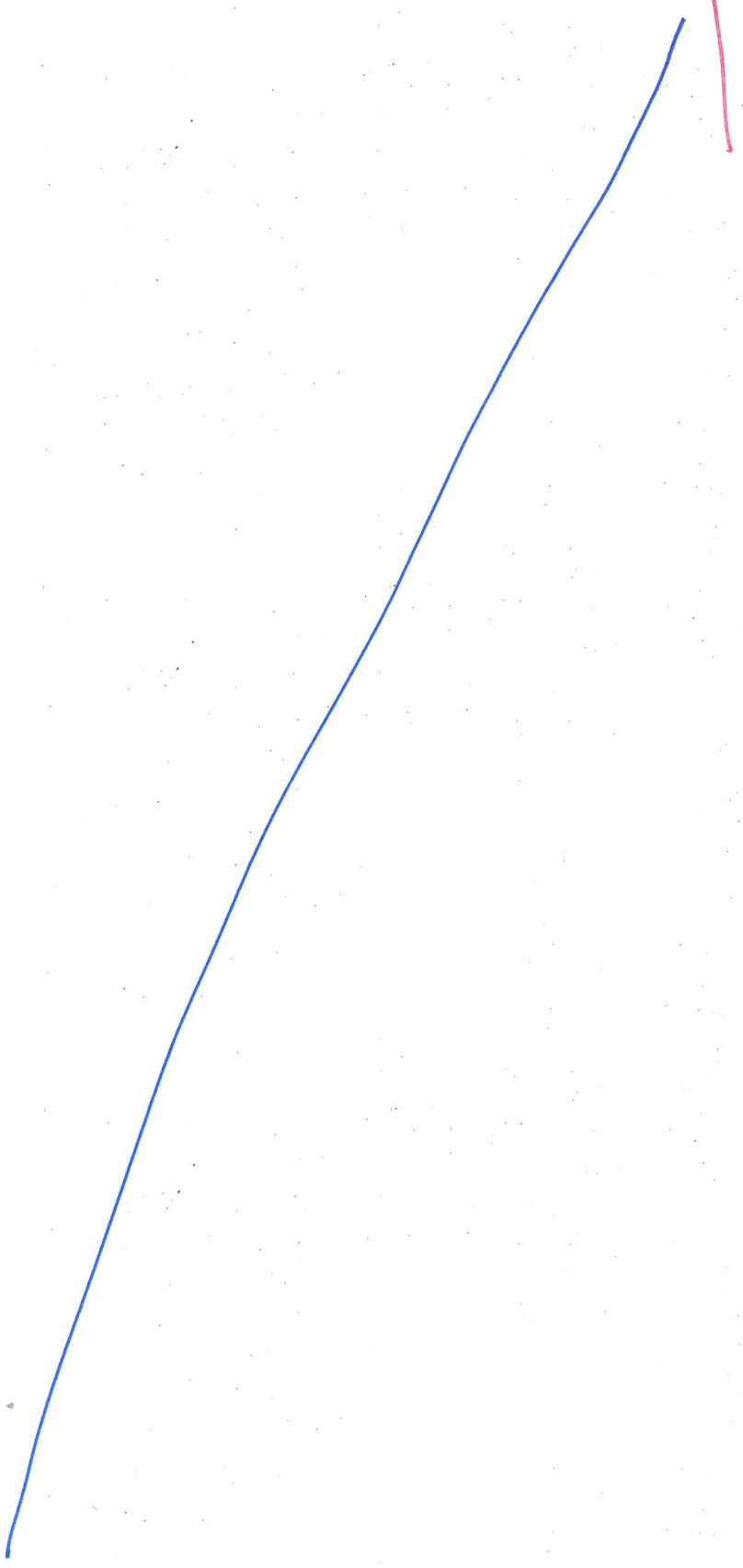
Clerk
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Fl. 18

						Total A	71.18
					Qty Ltd to		70.51
11	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications.						
		cum					
		0-10		10	2.0	0.23	4.6
		15-30		15	2.5	0.23	8.625
		35-50		15	3.0	0.23	10.35
		55-65		10	4.0	0.23	9.2
		120-130		10	2.5	0.23	5.75
		145-150		18	3.0	0.23	12.42
		155-165		10	4.5	0.23	10.35
		170-180		10	3.0	0.23	6.9
		180-190		10	2.5	0.23	5.75
						Total A	73.95
					Qty Ltd to		70.51
13	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications.						
	1st A Cross	cum					
		0-15	1	15	6.9		103.5
		15-30	1	15	6.8		102
		30-45	1	15	6.0		90
		45-60	1	15	6.0		89.25
		60-74	1	14	6.4		89.6
		74-89	1	15	6.2		93
		89-104	1	15	5.9		88.5
		104-119	1	15	6.0		89.25
		119-134	1	15	6.1		91.5
		134-146	1	12	5.9		70.8
						Total	907.40
	2nd A Cross	cum					
		0-15	1	15	6.5		97.5
		15-30	1	15	6.4		96
		30-45	1	15	6.0		90
		45-60	1	15	6.1		91.5
		60-75	1	15	6.7		99.75
		75-78	1	3	6.7		19.95
		78-93	1	15	6.9		103.5
		93-108	1	15	7.1		105.75
		108-123	1	15	7.1		106.5
		123-138	1	15	7.3		109.5
		138-153	1	15	6.9		102.75
						Total	1022.70
	3rd A Cross	cum					
		0-15	1	15	7.4		111
		15-30	1	15	6.6		99
		30-45	1	15	6.1		91.5
		45-60	1	15	6.7		99.75

401.25

		60-75	1	15	7.0		105
		75-90	1	15	7.0		105
		90-105	1	15	6.9		103.5
		105-120	1	15	6.8		102
		120-135	1	15	6.9		103.5
		135-148	1	13	7.2		93.6
						Total	**1013.85**



	4th A Cross	cum					
		0-15	1	15	7.5		112.5
		15-30	1	15	7.1		106.5
		30-45	1	15	7.4		110.25
		45-60	1	15	7.4		110.25
		60-75	1	15	7.2		107.7
		75-90	1	15	7.0		105.45
		90-105	1	15	6.7		99.75
		105-120	1	15	6.7		99.75
		120-135	1	15	6.2		92.25
		135-153	1	18	5.9		105.3
						Total	**1049.55**
	Road b/n 1st and 4th cross	cum					
		0-15	1	15	8.9		133.5
		15-30	1	15	9.0		135
		30-45	1	15	9.2		138
		45-60	1	15	9.5		142.5
		60-75	1	15	9.5		142.95
		75-90	1	15	9.5		142.2
		90-102	1	15	9.1		136.5
						Total	**970.50**
	5th A Cross	cum					
		0-15	1	15	6.8		102
		15-30	1	15	6.8		102
		30-45	1	15	6.7		100.5
		45-60	1	15	7.1		105.75
		60-75	1	15	7.5		112.5
		75-90	1	15	7.9		117.75
		90-105	1	15	7.9		118.5
		105-120	1	15	7.1		106.5
		120-135	1	15	6.5		97.5
		135-147	1	12	6.9		82.8
						Total	**1045.80**
	6th A Cross	cum					
		0-15	1	15	6.9		103.5
		15-30	1	15	7.0		105
		0-15	1	15	7.0		105
		15-30	1	15	7.0		105
		30-45	1	15	7.0		105
						Total	**523.50**
	Main Road (From Ayyappa Temple to om shakthi Temple)	cum					
		0-15	1	15	8.7		130.5
		15-30	1	15	8.4		126
		30-45	1	15	8.4		126
		45-60	1	15	8.5		127.5
		60-75	1	15	8.5		127.5
		75-90	1	15	8.6		128.25
		90-105	1	15	8.6		128.25
		105-120	1	15	8.6		128.25
		120-135	1	15	8.7		130.5
		135-150	1	15	8.6		128.25
		150-165	1	15	8.4		125.25

1406.25

		~~150-165~~	~~1~~	~~15~~	~~8.4~~		~~126.25~~
		165-180	1	15	8.5		126.75
		180-195	1	15	8.4		126
		195-210	1	15	8.3		124.5
		210-240	1	15	8.5		126.75
		240-265	1	15	8.3		123.75
		265-280	1	15	8.1		121.5
		280-295	1	15	8.0		120
		295-310	1	15	8.0		120
		310-325	1	15	8.4		126
						Total	**2521.50**
						Total	**9054.80**
						Qty Ltd to	**9048.00**
12	Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications.						
		cum					
		0-10		10	2.0		20
		15-30		15	2.5		37.5
		35-50		15	3.0		45
		55-65		10	4.0		40
		120-130		10	2.5		25
		145-150		18	3.0		54
		155-165		10	4.5		45
		170-180		10	3.0		30
		180-190		10	2.5		25
						Total	**321.50**
						Qty Ltd to	**306.56**
3	Providing and constructing granite /trap/basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms hign, bond stones at two m apart in each course including cost of materials, labour, curing etc., complete as per specifications.						
		cum					
		0-30	1	30	0.45	0.60	8.1
		40-70	1	30	0.90	0.60	16.2
		85-115	1	30	0.45	0.60	8.1
		120-150	1	30	0.45	0.45	6.075
		160-190	1	30	0.60	0.45	8.1
		195-225	1	30	0.45	0.45	6.075
		230-250	1	20	0.45	0.45	4.05
		260-290	1	15	0.45	0.45	3.0375
		295-315	1	20	0.45	0.45	4.05
						Total	**63.72**
4	Providing ruled pointing of course stone msonry with cement mortar 1:3 20 mm deep, after raking joints to depth of 20 mm nicley lining, including cost of materials, labour, curing etc., complete as per specifications						
		0-30	1	30		0.60	18
		40-70	1	30		0.60	18
		85-115	1	30		0.60	18
		120-150	1	30		0.45	13.5
		160-190	1	30		0.45	13.5
		195-225	1	30		0.45	13.5

Assistant Executive Engineer
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Bangalore Mahanagara Palike
Bangalore-560 092

		230-250	1	20		0.45	9
		260-290	1	15		0.45	6.75
		295-315	1	20		0.45	9
						Total	**140.85**
5	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs, with 20 mm and down size graded granite matel coarse aggregates @ 0.69 cum and fine aggragtes @ 0.459cum, machine mixed concrete laid in layers not eceeding 15 cms, thick well compacted, in foundation, plinth and cills including cost of all materials, labour HOM machinery curing complate as per specifications.						
		cum					
	Culvert Bottom		2	6	0.45	0.1	0.54
	Culvert side wall coping		4	6	0.45	0.1	1.08
	coping of side wall	0-30	2	30	0.4	0.1	2.4
		30-60	2	30	0.4	0.1	2.4
		60-90	2	30	0.4	0.1	2.4
		90-120	2	30	0.4	0.1	2.4
		120-150	2	30	0.2	0.1	1.2
		150-180	2	30	0.2	0.1	1.2
		180-210	2	30	0.2	0.1	1.2
		210-240	2	30	0.2	0.1	1.2
		240-270	2	30	0.2	0.1	1.2
		270-300	2	30	0.2	0.1	1.2
		300-330	2	30	0.2	0.1	1.2
						Total A	**19.62**
						Qty Ltd to	**18.60**
7	Providing and fixing RCC Precast cover slab of 200mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)						
	Location	cum					
				20	1.8	0.6	21.6
						Total A	**21.60**
6	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)						
	Location	cum					
		30-40	1	10		1.2	12
		60-70	1	10		1.2	12
		90-95	1	5		1.2	6
		125-130	1	5		1.2	6
		220-230	1	10		1.2	12
		290-330	1	40		1.2	48
						Total A	**96.00**
	RHS	cum					
		0-30	1	30		1.2	36
		30-60	1	30		1.2	36
		65-75	1	10		1.2	12
		80-100	1	20		1.2	24
		110-130	1	20		1.2	24
		130-145	1	15		1.2	18

94.50
Centre Leaf 1/6
NDP AE(LM) 1/6
119.25
Centre Leaf 2/6
NDP AE(LM) 23/6
Centre Leaf
NDP AE(LM) 23/8
150.00

150.00

		150-180	1	30		1.2	36
		180-200	1	20		1.2	24
						Total A	**210.00**
							306.00
					Qty Ltd to		**305.40**

Certified
Dev 23/8

NDR
DE(W) 23/8

	Removing and resetting of kerb stones						
		cum					
		0-30		45			45
		30-60		35			35
		60-90		22			22
		90-120		30			30
		120-150		30			30
		150-180		32			32
		180-210		45			45
		210-240		85			85
		240-270		50			50
		270-300		50			50
		300-330		45			45
						Total A	**469.00**
9	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete						
		cum					
		0-30		35			35
		30-60		30			30
		60-90		30			30
		90-120		25			25
		120-150		45			45
		150-180		45			45
		180-210		35			35
		210-240		35			35
		240-270		55			55
		270-300		45			45
		300-330		67			67
						Total	**447.00**
14	Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.						
						Total	**9048.00**
15	Providing and laying bituminous concrete 40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 6% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications.						
	1st A Cross	cum					
		0-15	1	15	6.9	0.04	4.14
		15-30	1	15	6.8	0.04	4.08
		30-45	1	15	6.0	0.04	3.6
		45-60	1	15	6.0	0.04	3.57
		60-74	1	14	6.4	0.04	3.584
		74-89	1	15	6.2	0.04	3.72

22.69

22.69

		89-104	1	15	5.9	0.04	3.54
		104-119	1	15	6.0	0.04	3.57
		119-134	1	15	6.1	0.04	3.66
		134-146	1	12	5.9	0.04	2.832
						Total A	**36.30**
	2nd A Cross	cum					
		0-15	1	15	6.5	0.04	3.9
		15-30	1	15	6.4	0.04	3.84
		30-45	1	15	6.0	0.04	3.6
		45-60	1	15	6.1	0.04	3.66
		60-75	1	15	6.7	0.04	3.99
		75-78	1	3	6.7	0.04	0.798
		78-93	1	15	6.9	0.04	4.14
		93-108	1	15	7.1	0.04	4.23
		108-123	1	15	7.1	0.04	4.26
		123-138	1	15	7.3	0.04	4.38
		138-153	1	15	6.9	0.04	4.11
						Total A	**40.91**
	3rd A Cross	cum					
		0-15	1	15	7.4	0.04	4.44
		15-30	1	15	6.6	0.04	3.96
		30-45	1	15	6.1	0.04	3.66
		45-60	1	15	6.7	0.04	3.99
		60-75	1	15	7.0	0.04	4.2
		75-90	1	15	7.0	0.04	4.2
		90-105	1	15	6.9	0.04	4.14
		105-120	1	15	6.8	0.04	4.08
		120-135	1	15	6.9	0.04	4.14
		135-148	1	13	7.2	0.04	3.744
						Total A	**40.55**
	4th A Cross	cum					
		0-15	1	15	7.5	0.04	4.5
		15-30	1	15	7.1	0.04	4.26
		30-45	1	15	7.4	0.04	4.41
		45-60	1	15	7.4	0.04	4.41
		60-75	1	15	7.2	0.04	4.308
		75-90	1	15	7.0	0.04	4.218
		90-105	1	15	6.7	0.04	3.99
		105-120	1	15	6.7	0.04	3.99
		120-135	1	15	6.2	0.04	3.69
		135-153	1	18	5.9	0.04	4.212
						Total A	**41.99**

	W0114 bt 4 tnd 1 st	cum					
		0-15	1	15	8.9	0.04	5.34
		15-30	1	15	9.0	0.04	5.4
		30-45	1	15	9.2	0.04	5.52
		45-60	1	15	9.5	0.04	5.7
		60-75	1	15	9.5	0.04	5.718
		75-90	1	15	9.5	0.04	5.688
		90-102	1	15	9.1	0.04	5.46
						Total A	**38.83**
	5th A Cross	cum					
		0-15	1	15	6.8	0.04	4.08
		15-30	1	15	6.8	0.04	4.08
		30-45	1	15	6.7	0.04	4.02
		45-60	1	15	7.1	0.04	4.23
		60-75	1	15	7.5	0.04	4.5
		75-90	1	15	7.9	0.04	4.71
		90-105	1	15	7.9	0.04	4.74
		105-120	1	15	7.1	0.04	4.26
		120-135	1	15	6.5	0.04	3.9
		135-147	1	12	6.9	0.04	3.312
						Total A	**41.83**
	6th A Cross	cum					
		0-15	1	15	6.9	0.04	4.14
		15-30	1	15	7.0	0.04	4.2
		0-15	1	15	7.0	0.04	4.2
		15-30	1	15	7.0	0.04	4.2
		30-45	1	15	7.0	0.04	4.2
						Total A	**20.94**
	Main Road (From Ayyappa Temple to om shakthi Temple)	cum					
		0-15	1	15	8.7	0.04	5.22
		15-30	1	15	8.4	0.04	5.04
		30-45	1	15	8.4	0.04	5.04
		45-60	1	15	8.5	0.04	5.1
		60-75	1	15	8.5	0.04	5.1
		75-90	1	15	8.6	0.04	5.13
		90-105	1	15	8.6	0.04	5.13
		105-120	1	15	8.6	0.04	5.13
		120-135	1	15	8.7	0.04	5.22
		135-150	1	15	8.6	0.04	5.13
		150-165	1	15	8.4	0.04	5.01
		165-180	1	15	8.5	0.04	5.07
		180-195	1	15	8.4	0.04	5.04
		195-210	1	15	8.3	0.04	4.98
		210-240	1	15	8.5	0.04	5.07
		240-265	1	15	8.3	0.04	4.95
		265-280	1	15	8.1	0.04	4.86
		280-295	1	15	8.0	0.04	4.8
		295-310	1	15	8.0	0.04	4.8
		310-325	1	15	8.4	0.04	5.04
						Total A	**100.86**
						Total	**362.20**
						Qty Ltd to	**360.66**

NDP
AE(Ty)
26/8

CE/Ke
Dee/26/8

16	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.						
		cum					
	1st A Cross	0-146	2	146		0.1	29.2
	2nd A Cross	0-153	2	153		0.1	30.6
	3rd A Cross	0-148	2	148		0.1	29.6
	4th A Cross	0-153	2	153		0.1	30.6
	W0114 bt 4 tnd 1 st	0-105	2	105		0.1	21
	5th A Cross	0-147	2	147		0.1	29.4
	6th A Cross	0-75	2	75		0.1	15
	Main Road (From Ayyappa Temple to om shakthi Temple)	0-300	2	300		0.1	60
						Total	**245.40**

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092